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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,002	03/29/2001	Jianqin Wang	NEC F-10850	8523
27667	7590	05/04/2005	EXAMINER	
HAYES, SOLOWAY P.C. 130 W. CUSHING STREET TUCSON, AZ 85701			NGUYEN, DUC M	
			ART UNIT	PAPER NUMBER
			2685	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/821,002

Applicant(s)

WANG, JIANQIN

Examiner

Duc M. Nguyen

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-8,10 and 11 is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This action is in response to applicant's response filed on 4/1/05. Claims 1, 3-8, 10-12 are now pending in the present application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Bojer** in view of **Law** (US 5,303,417).

Regarding claim 12, **Bojer** discloses an image rejection mixer (see Figs. 1-3, and col. 3, lines 5-57), comprising:

- A signal distributor with local signals as claimed (see Fig. 2, ref. 42 and col. 3, lines 21-45). Here, since the signals supplied to the mixers comprises local signals of different phases, the phase shifter 42 would read on the "signal distributor" as claimed;
- first and second mixing means as claimed (see Fig. 2, refs. 44, 46);
- first and second phase shift means (see Fig. 2, refs. 50, 52, and col. 3, lines 45-52);
- addition means as claimed (see Fig. 2, ref. 54);
- remove image signal as claimed (see col. 3, lines 45-49).

Art Unit: 2685

Here, although **Bojer** does not specifically mention the 90 degree phase shift of the IF signals for removing image signals, **Bojer** does mention that the signals are phase shifted and recombined to reject an image signal. Since using a 90 degree phase shift for removing image signals is known in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **Bojer** for providing a 90 degree phase shift as claimed, in order to remove a desired image frequency signal.

However, **Bojer** fails to disclose the phase shifter comprises R-L elements. However, it is noted that a phase shift circuit which comprises any combination of R, L, C elements is well known in the art as disclosed by **Law** (see Fig. 10 and col. 4, lines 15-18). Therefore, it would have been obvious to one skill in the art to incorporate **Law's** teaching to **Bojer** for providing a phase shift circuit comprising L-R components as claimed, in order to generate a desired phase shift for the signal.

### ***Allowable Subject Matter***

2. Claims 1-1.1 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 1, 10, 11, the cited prior art of record fail to disclose or make it obvious the claimed invention for the reasons as stated in Applicant's response filed on 2/28/05, pages 7-8.

### ***Response to Arguments***

Art Unit: 2685

4. Applicant's arguments filed 2/28/05 have been fully considered but they are not persuasive.

As to claims 1, 10, 11, Applicant's arguments are moot in view of the new ground(s) of rejection.

As to claim 12, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the phase shifter **consists** of only inductors and resistors) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Here, since the claim merely recite the phase shifters **comprise** a lattice circuit **having** inductors and resistors, the phase shifter as disclosed by Law's reference (see Fig. 10) would on the lattice circuit as claimed.

### ***Conclusion***

5. **Any response to this action should be mailed to:**

Commissioner of Patent and Trademarks

Washington, D.C. 20231

or faxed to:

703-872-9314 (for formal communications intended for entry)

(for informal or draft communications, please label PROPOSED or DRAFT)

Art Unit: 2685

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM). Or to Edward Urban (Supervisor) whose telephone number is (571) 272-7899.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-7259.

Duc M. Nguyen

A handwritten signature in black ink, appearing to read 'Duc M. Nguyen', with a long horizontal stroke extending to the right.

May 1, 2005